



Iowa Department of Education





Preschoolers

(ages 3 to 5 years)

Sensorimotor development

WRITING IS A DYNAMIC LINK to enhance children's abilities to get ready to read. In fact, writing helps children connect with the very symbols needed in learning to read (Smith, 2000). Writing is the ability to communicate with others using written symbols designated by our culture, the alphabet. Also, writing describes young children's range of developmental skills from scribbling to forming letters. Skillful writing, just as early language and reading skills, develops over a long period of time. However, recent research of children's emerging literacy development indicates that young children actively become writers long before they enter kindergarten (Neuman & Roskos, 1998; Schickedanz, 1999; Temple, Nathan, & Burris, 1993). In the past, educators believed that before children could become writers, they had to know their letters, i.e. to be able to name the letters of the alphabet. Current research indicates development of writing skills begins some time before children can name letters or say letter sounds. The developmental continuum of learning to write starts at an early age with the simple grasp and manipulation of objects and gradually evolves to connecting lines to form letters. Various researchers describe stages of development for writing but most agree the stages are rarely sequential (Morrow, 1997). Three broad stages of development will be reviewed for the purpose of this concept paper: sensorimotor, scribbling, and writing first letters.

Sensorimotor development is the first experience children need for later developing skillful manipulation of writing tools with their fingers. Children from two to six years of age begin developing fine motor hand skills by learning to handle and manipulate small objects (Case-Smith & Berry, 1998). Manipulating small objects develops the small muscles in the hand, which will be necessary for writing and cutting activities in later years. Children younger than 12 months of age develop grasp and release skills, such as holding a rattle and dropping objects into a container. By 12 to 24 months, children develop more mature grasp and release patterns. They easily pick up small objects using their thumb and index fingers, build with blocks, and use tools to imitate adult actions. Between the ages of 3 to 6 years, small muscles in the palm develop. These muscles allow manipulation of objects within the hand called in-hand manipulation skills. In-hand manipulation skills are to handwriting skills as *phonemic awareness* [similarity of sounds in a language] skills are to reading skills. Since in-hand manipulation skills develop during the ages of three to six, facilitating these skills is a critical part of preschool. In addition, many fine motor skills require bilateral skills, meaning using both hands. Stringing beads is a two-handed coordination skill. One hand holds the bead and the other hand pushes the string through the bead. Using scissors, drawing pictures, and writing first letters all involve bilateral skills. One hand holds the paper while the other hand cuts, draws, or writes. It is important to offer many experiences to children that allow them to develop different in-hand manipulation

Early scribbling

skills. Through these experiences, children will eventually be able to grasp a pencil, crayon, etc., to scribble and write letters (Exner, 1989; 1992). Children at this age should have fun with exploration in manipulating play objects and letting their fingers guide their play.

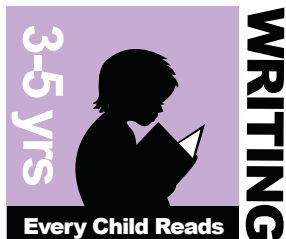
Children's early attempts at writing are best described as exploratory play. Many children begin to make marks with crayons or pencils as early as 18 to 24 months. By the age of three, children who see print in their environment being used for specific purposes and see adults writing will often begin to create and organize marks that look like writing. Children begin to identify the relationships between the marks they produce on their paper and the movement of their arms, hands, and fingers. They deliberately vary their actions to see what they produce. These early scribbles consist primarily of circular shapes, dots, and twisted and straight lines. Some scribbles look more like drawing while others appear to be more like writing. These children later begin to distinguish between the marks they produce on their paper as something print-like from something picture-like (Schickedanz, 1999).

First letters

Children begin to distinguish between drawing and writing around four years of age. They realize that the same straight and curved lines and circles they used in drawing are organized differently in print. Children's scribbles begin to take on more writing-like characteristics such as being more linear than circular and arranged more horizontally than vertically. They may begin to repeat particular kinds of linear marks. Usually the first letter of the child's name is mixed with scribble writing (Schickedanz, 1999). As children gain more knowledge about combining lines, more letter-like forms begin to appear in their writing.

To enhance the development of these three developmental stages of writing, three principles have been selected to assist parents and teachers in getting children ready to read. The three principles include:

- 1) Children need to develop an awareness of print
- 2) Children need to develop fine motor hand skills for writing
- 3) Children need to engage in meaningful writing experiences



Principle 1

Children Need to Develop an Awareness of Print

Structuring the environment to enhance awareness of print

THE EARLY STAGES OF WRITING begin with children developing an awareness of print. This means that children need to become aware of printed words and understand that print is used for two purposes: reading and writing. Awareness of print provides a foundation or background knowledge for writing words. Developing children's awareness of print is similar to structuring language experiences for children. Parents and teachers need to point out print during special or planned activities in or outside of the home or early care and education setting. For most children, an understanding of written language is first embedded in familiar situations and real-life experiences of family and the community surroundings (Gundlach, McLane, Scott, & McNamee 1985). Many things families do in relation to one another promote print awareness such as writing notes, making shopping lists, sending birthday cards, watching television (print frequently appears on the screen), or looking at sale advertisements in the newspaper (Morrow, 1997). In everyday life in the community, children are surrounded by print on street signs, food displayed at the grocery store, favorite places to eat such as McDonalds, Burger King, or Dairy Queen, or the time-and-temperature clock at the bank. Adults can assist children in developing print awareness using two strategies: 1) Structure the environment to encourage awareness of print; and 2) Point to and read meaningful print to children.

The first strategy is to structure the environment to assist children in developing an awareness of print. In other words, meaningful writing should be displayed in homes and early care and education settings. For example, labels, lists, signs, and charts can provide many meaningful print experiences for children. The routine use of these print examples should provide repeated opportunities to help children become aware of print and establish basic reading and writing skills.

Labels. In an early care and education setting, every room should have different meaningful labels displayed. However, the most important meaningful labels that should be displayed are the children's names. Children's names should be on all spaces with their belongings such as cubbies, coat hooks, or lockers. (See Appendix J, Activities to Stimulate Print Awareness.)

There are different philosophies about how children's names should be written as they begin kindergarten. Some professionals feel children's names should be written with an uppercase or capital letter at the beginning followed by lowercase letters (example: Steve). This is the typical way words are written and it helps children become familiar with print they see in books. Olsen (1998) suggests children's names should be written with all uppercase or capital letters (example: STEVE) since this method facilitates learning to write letters as well as reading skills. Writing capital letters is much easier since it is developmentally appropriate,

reduces reversals, and decreases frustration. Capital letters are all the same height, start at the same place (top of the letter), occupy the same vertical space, and are easy to recognize. Also, all around our world there are common words written in all capitals such as: EXIT, BOYS, GIRLS, RESTROOMS, DANGER, and HOSPITAL. Olsen suggests that once capital letters are learned, then children should learn to write lowercase letters. By the end of kindergarten or first grade, children should be able to write their name in upper and lowercase letters. It is suggested that early care and education providers check with their local school district to determine the type of letters being used for instructing beginning kindergartners.

Another way to use labels is to mark the location of toys, books, or materials in the room. If containers of materials belong in specific places on shelves, both the containers and the shelves can be marked with matching labels. As children learn new words and concepts, they will follow a developmental sequence of matching, pointing, and naming. At the beginning of the preschool year, children will need matching cues. The adult may place a picture of the objects next to the printed word on particular containers to assist children in matching the word. For example: a container that has blocks would display a picture of blocks along with the printed word BLOCK. In addition, the adult would explain and show the children that the words on the container label and the shelf label match; otherwise, children may not understand the purpose of the words on the labels and ignore them. One helpful way for young children to become more aware of printed labels is to let them place the labels on the containers and shelves. Involvement in arranging materials and attaching labels to the shelves or bins helps children notice the labels and understand their purpose.

Lists. Lists can be used to support organization of home or early care and education settings while at the same time promote print awareness. If new materials or toys are placed at a center, chances are that many children will want a turn to use the new item during the first few days. One way to show children the purpose of lists (to remember and keep track of things) is to create a turn-taking list for the new item(s). The children may write or observe the teacher write their name on the list and as children get a turn, they may cross off their name. Children who want to play in a center may check their name on the list so they know their turn is coming. Remember, at first the adult may have to help children read the names (even their own names). Other ideas for lists include making: a list of supplies needed to make a snack, a list of favorite parts of a field trip, or a list of steps to follow daily routines. During the first part of the year or for younger children, the adult will need to read and point to the words on the list. Over time, children can be the reader of the words on the list or the Literacy Helper!

Signs. Signs can be used in preschool rooms to help build print awareness. A QUIET sign can be used during naptime or handed to children at the beginning or end of the line while walking to eat or play outside. At the beginning of the year, a picture of a person with fingers to lips and sh-sh-sh-sh printed near the mouth

can help children remember the meaning of the sign. As the year goes by and children become more familiar with the message in print, adults may remove the picture cues so the children attend to the print only. Signs may be used to show the number of children that can be in a particular center at any one time. Instead of having a number on a card, a sign could read 3 CHILDREN ONLY. Once again, at the beginning of the year, one could have a picture of three children to help convey the meaning of the print message. As children learn to read, they will find the pictures tell only part of the story. The print tells the whole story. Another suggestion is to post signs for directions in routine places. For example, display a sign that says Wash your hands by the sink or Flush the toilet in the bathroom. As discussed with labels, involve the children in making and hanging the signs. This will help children attend to the print.

Charts. Charts are a practical way to help children become more independent in the classroom and become aware of print. Two typical kinds of charts are Helper Charts and Attendance Charts. At the beginning of the year or for younger children, the attendance chart may have the child's name and picture on it. As the year progresses or children become older, the picture needs to be removed for children to recognize their name and the names of other children. Changing the order of names on the chart every day gives children more opportunities to look and recognize their name and other children's names. One of the jobs on the Helper Chart should be Literacy Helper. This child can help with labeling or any other print activity that needs to be done. Other charts that can be used at home or in the classroom to promote print awareness are Daily Schedule Charts and Recipe Charts. Using a Daily Schedule Chart not only stimulates print awareness, but also helps children transition from one activity to another. Each time children make a transition, the adult can refer to the chart and point to the words as the next activity is read. When children cook, they can use a Recipe Chart. Children can easily follow the steps of a simple recipe if it is written on a large piece of paper or tag board. Read the snack recipe and discuss the steps in making it. Allow the children to repeat the steps in the recipe as you write it on the tag board. This process provides an opportunity for adults to show children that the words we say can be written down and that we write one word for each word spoken. This not only promotes print awareness, it helps children build oral language skills.

Providing print experiences, planning activities to stimulate print awareness, and organizing the environment to increase children's print awareness are all excellent strategies to help children develop literacy knowledge. Routinely plan to use these strategies so children will become aware of print and understand that print is used for a purpose.

Point to and read meaningful print to children

The second strategy to help children develop an awareness of print is to point to and read meaningful print to children. Meaningful print may be pointed out to children during daily routines or special events. Children as young as three years of age may be shown various letters and words important to their daily lives. Looking at print has no developmental age boundaries. Children and adults continuously point out print, as well as other things, to each other no matter the developmental age. Adults may select a variety of meaningful print examples each day, point to a letter or word, and then say the letter or word aloud. The adult does not need to read everything printed in sight. The adult simply takes advantage of the fact that the world is full of print and points out the more meaningful print to children. Over time, as children look at print, they will begin to understand that a printed word stands for a specific object or objects. The printed word STOP is usually seen as a stop sign and means the car or person must not move across the street for a brief time before looking for other cars. The following examples provide suggestions for pointing to and reading print in or outside of the home or early care and education setting.

In the Home or Early Childhood Setting	Outside of the Home or Early Childhood Setting
Daily clothing routines <ul style="list-style-type: none"> Point to and read words on clothes. "Look! Grandma got you a T-shirt from the Iowa State Fair! Your shirt says Iowa State Fair." 	Other events and activities <ul style="list-style-type: none"> Point to and read words on signs in the mall. "Sears. That's where we bought our new lawn mower."

Other strategies may be used to assist children in developing awareness of print. Children may match print, point to print, and name printed letters or words. Adults are encouraged to be aware of children's developmental skills and appropriate expectations in using these strategies.

Match print. In matching print, the adult shows children a letter or word and asks them to find another one. Using this strategy, the adult always shows the child the letter or word first and then asks the child to find another one. Some children as young as four years of age will be able to match letters and words. Parents and adults may use direct teaching and demonstrate matching letters and words in large group activities. For example, the adult may show the children the first letter of his or her name (**S**usan) and point to the same letter in other words in the

room (**S**amoa’s name above her coat hook or **s**unny printed on the weather sign). Indirect teaching opportunities using matching of letters and words may occur throughout the day as children engage in daily activities such as eating snack (“Popcorn, here’s a letter P, find another letter P on the popcorn box”) or reading books (“This is Clifford’s name. Find his name again as we read this page.”).

In the Home or Early Childhood Setting	Outside of the Home or Early Childhood Setting
Daily food routines <ul style="list-style-type: none">Point to and read a word on the child’s T-shirt. “Fair has a big letter F. Here’s the word Fruit Loops on your cereal. Find a big letter F on your box of Fruit Loops.”	Other events and activities <ul style="list-style-type: none">Point to and read words posted in the store. “There’s the word Sears on the sign. Can you find the Sears word on my sack?”

Point to print. Once children can match two similar letters or words, they are ready to point to a letter or word without being shown an example or cue from the adult. Children learn to point to familiar letters and words that adults have repeatedly shown them. Some children begin developing this skill around four years of age. Pointing to a letter or word without a model or cue is a more difficult task for children so they will need many looking and matching examples before asked to point. To use the pointing strategy, adults simply ask children to point to a meaningful letter or word the child has already practiced looking at or matching. Asking a child to point to the word **STOP** on a sign is an example of a familiar word encountered often in the child’s environment. During reading of a book, children may point to words that occur repeatedly throughout the pages. For example, children may point to the words **what do you see** in the story, Brown Bear, Brown Bear, What Do You See? (Martin, 1983).

In the Home or Early Childhood Setting	Outside of the Home or Early Childhood Setting
Daily clothing routines <ul style="list-style-type: none">While folding clothes, hold up two T-shirts and say, “Look, your T-shirt from the Iowa State Fair and your baseball team shirt. Show me the word Fair on your T-shirt.”	Other events and activities <ul style="list-style-type: none">While shopping in the mall, say, “I’m looking for the Sears store. Where is that Sears sign? Sears is where we bought our new lawn mower? Can you point to the Sears sign?”

Name printed letters or words. The last strategy is to have children name printed letters or words. Some children will begin to name meaningful letters and words between four and five years of age. Once again, this is a more difficult task for children and they will need many “looking, matching, and pointing” examples before this skill develops for consistently naming letters and words. To use the naming strategy, adults need to ask children to name a letter or word that has already been practiced. In reading a familiar book to children (story has been read several times), the adult would point to the words Brown Bear and ask children, “Tell me this word,” or “Read this word to me.”

In the Home or Early Childhood Setting	Outside of the Home or Early Childhood Setting
Daily clothing routines <ul style="list-style-type: none">• Look! The T-shirt Grandma bought you got dirty. Can you still read what it says?• Child answers, “Iowa State Fair!”	Other events and activities <ul style="list-style-type: none">• Sign in the mall: “What does that sign say?”• Child answers, “Sears. That’s where we got our big lawn mower.”

Developing children’s awareness of print in home or early care and education settings is not meant to be a difficult task. Print surrounds us in our daily lives everywhere we go. The important concept is to help children look and see meaningful print around them.



Principle 2

Children Need to Develop Fine Motor Hand Skills for Writing

AS CHILDREN DEVELOP PRINT AWARENESS, they soon become aware that written language provides another way to communicate. Children naturally begin to experiment with and engage in writing. In fact, if left unsupervised, children will often demonstrate their interest in writing by decorating the walls at home or early childhood setting (Schickedanz, 1999). While experimenting with writing is natural, writing is a physical act that requires fine motor skill manipulation and control of the fingers. Young children's muscle control is still developing between three to six years of age, particularly muscle control in the hand and the fingers. Many three- to five-year-old children have not yet developed the mature grasp that is necessary for coloring in shapes, working on papers or writing in journals (Olsen, 1998). Children who lack sufficient hand development will adopt patterns that may be inefficient and impede writing skills. Thus, formal handwriting instruction (direct teaching for printing the letters of the alphabet) is not considered appropriate in early childhood settings. It is more important that preschoolers are provided opportunities to enhance their sensorimotor development so that early exploration does not produce later negative effects. Tools such as pencils, crayons, paintbrushes and even silverware, are extensions of the hand that uses them; therefore, the hand must be skilled before it can skillfully manipulate a tool (Benbow, 1995). For children three to six years old, encouraging exploration and pre-writing skills is more developmentally appropriate. The role of the adult is to facilitate children's development of motor skills. This will enable them, when older, to use writing as a method of communicating. Children's sensorimotor skills, scribbling, and writing first letters will be reviewed in more detail through exploratory play, early attempts at writing, and experimentation of lines and shapes for writing letters.

Sensorimotor skills; Exploratory play

It is important early childhood practitioners understand developmental readiness of hand skills for children. Research shows marked cultural differences in the development of a mature pencil grip. For example, 94.8 percent of Taiwanese children studied achieved a mature grip by the age of 5 to 5.4 years. By comparison, 90 percent of American children developed a mature grip nearly a year later, at the age of 6 to 6.4 years (Tseng, 2000). The culture's emphasis on chopsticks, which requires early manipulation of an eating tool and strength and function of hand muscles, is hypothesized as the difference in development.

Children between three and four years of age should spend time with fine motor manipulatives, small objects that can be handled and manipulated (Exner, 1996; Frolek Clark, 1998; Levine, 1987). Playing with small objects will develop the small muscles in the hand or in-hand manipulation skills, which will be necessary for writing and cutting activities in later years. A strategy adults may use to help children develop fine motor skills is to provide a variety of small manipulative

objects and sensorimotor play activities. A few examples of in-hand manipulative objects include small plastic figurines, especially those with movable arms and legs; lacing cards; beads (macaroni) and string; dice and tokens for board games; card games; small pieces of torn paper to make pictures; tweezers; blocks, Lincoln Logs, Duplos, and Bristle Blocks. Children three to five years of age and even beyond benefit from activities of exploring and developing their hand muscles through play such as drawing, painting, working with playdough, or constructing with Duplos or Legos (Bredenkamp & Copple, 1997). Also, self-care skills may be used to practice in-hand manipulation skills as in buttoning or snapping clothes and using utensils for eating. Children eventually learn pencil grasp skills from the way they use silverware. In fact, until a child has developed the necessary refined muscle movement in the hand to manipulate objects like eating utensils, a strong emphasis on tool use (i.e., pens, scissors, crayons) is not advised. Other sensorimotor play activities have been included in Appendix K. It is important to remember in helping children developing sensorimotor skills, the adult emphasis should be on exploration, not drill and practice.

Adults may have many in-hand manipulation objects available for children to play with but that is not enough. Another important strategy is for adults to model or demonstrate how to manipulate a variety of small objects and engage children in fine motor play activities. A model or demonstration may not be needed for all children every time. However, describing the object manipulation to children provides another opportunity to model language while demonstrating a fine motor skill. Lacing cards or stringing beads may be examples adults would want to model and explain to children.

Scribbling; Early attempts at writing

The next stage of writing development reviewed was scribbling. By ages two and three many children will scribble on paper. Scribbling is fun writing that should be especially encouraged in children by adults. Children, and many parents, need to be assured it is fine to write in a scribbling fashion. Scribbling is the beginning skill that leads to writing letters. It builds the background knowledge for writing first letters. Scribbling is like an infant babbling. The infant must experience babbling before learning to form sounds in words. Adults can provide different writing objects and activities for children to experience scribbling. Writing in shaving cream, whip cream, sand or finger paint encourages all sizes of lines, squiggles, and marks. Children should have lots of opportunities to work on vertical and slanted surfaces. Scribbling or writing on vertical or slanted surfaces such as chalkboards, easels, or paper taped to the wall, cabinets, or the refrigerator is developmentally easier than working on a flat surface. Provide small pieces of chalk about 1/4 of an inch long to encourage children to pinch the chalk (Olsen, 1998). Also, erasing or drawing with a small 1/2-inch damp sponge helps develop fine motor hand skills. Adults need to model scribbling as well as have other children in the classroom model scribbling. Most classrooms and families have fine scribblers!

**Writing first letters;
Experimentation of
lines and shapes**

As children continue to explore and experiment with their own scribbling, their writings begin to contain more letter-like marks, often referred to as mock writing. Mock letters are not actually letters, but they use more line segments seen in real letters. In an extensive study of children's writing development, Marie Clay (1976) identified several characteristics that are typical of children's early writing.

- 1) Writing consists of the same marks repeated over and over again.
- 2) Writing consists of the same characters repeated in different combinations.
- 3) Writing consists of arbitrary symbols that stand for something else.
- 4) Letters (that children know) can be varied to produce new letters.

There are motor and cognitive skills that must be developed to enable children to become efficient writers. Children must develop kinesthetic patterns (input from joints) and proprioceptive patterns (input from muscles) as well as background knowledge of actual letter formations.

First, writing is a motor activity, and the kinesthetic input, or input from joints, and proprioceptive input, or input from muscles, is very important. As a skill is repeated over and over, a kinesthetic pattern is established in the nervous system. Some experts believe appropriate kinesthetic skills are the key to becoming a successful writer since motor coordination and skill rely heavily on this feedback (Benbow, 1995; Exner, 1995). Therefore, it is important for adults to encourage children to perform writing skills correctly or they will develop skills incorrectly and possibly harmfully. Research supports that difficulty with kinesthesia skills is a good predictor of poor coordination and handwriting (Levine, 1987). Children with poor kinesthesia skills typically have to watch their hands as they use them since the sensory input received from them is poor. Generally, children with poor sensorimotor skills in their hands perform fine motor skills very slowly. These children have difficulty holding their pencils because they lack the fine dexterity and coordination. A pencil grasp is a common kinesthetic pattern that many children learn incorrectly. It is nearly impossible to change a pencil grasp that has been used incorrectly over a period of time. A poor pencil grasp may compromise children's writing fluency, legibility, and ability to learn cursive writing. Adults can assist children by teaching in-hand manipulation skills previously reviewed as well as by demonstrating the following mature grasp (Olsen, 1999):

Place your pen or pencil on the table with the lead pointing away from you. Pinch the pencil between your thumb pad and the index finger pad. Pick up the pencil and with your other hand, rotate the eraser down and up until it leans against your hand. The eraser should point back to the right or left shoulder, depending on hand preference. The pencil may be stabilized with the middle finger.

Do you have to grasp a pencil or pen like this? No, but it is the most efficient way to grasp a writing tool for ease and quickness of writing. Teaching children to grasp

writing tools correctly does not suggest children must be given immediate direct instructions to begin writing the alphabet letters. Adults begin enhancing children's writing skills by helping them establish appropriate grasping skills for later printing of letters.

The process of learning to write letters is a very complex task. As adults, the background knowledge for understanding the pattern of making letter formations has been established for several years. Young children are just beginning to develop this background knowledge. Schickedanz (1999) suggests writing alphabet letters requires children's knowledge of the:

- Visual image of each letter (that is, knowing how each letter looks)
- Line segments used to form each letter
- Sequences in which the lines are put together to compose the letter
- Direction in which to draw each of the lines.

In addition, the curriculum Handwriting Without Tears (Olsen, 1999), suggests that children should have the following skills to exhibit readiness to print::

- Established handedness
- Holds pencil in good writing position (pincer grasp, not fisted)
- Identifies concepts big curve, little curve, big line, little line, and
- Demonstrates satisfactory level of attention, cognitive skills, and cooperation

Olsen (1998) uses children's background knowledge of curves and lines to demonstrate and provide instructions for writing letters of the alphabet. Olsen further suggests that as children begin to form shapes or letters, it is important that adults encourage children to draw or write top-to-bottom and left-to-right. This means that children need to place their pencil at the top part of the letter, draw the line or curve downward, and move from the left to the right part of the letter. Also, adults should note that left-handers draw circles from a clockwise direction while right-handers draw circles in a counterclockwise direction. This is due to the anatomical difference of the hand position; it is easier to write pulling the pencil toward your forearm than away from it.

As a word of caution, formal handwriting instruction or directly teaching printing letters of the alphabet (you do what I say) is not considered appropriate in early childhood settings (Olsen, 1998; Benbow, 1995). Direct teaching of letters should occur in kindergarten or first grade. The role of the adult in helping three- to five-year-old children is to develop fine motor skills that will enable them, when older, to print letters and use writing as a method of communicating. The adult's role is to continuously model drawing letters and even talking aloud to describe how the letter was drawn. No demand is made on preschool children to use the directions. The child is looking and watching; taking in information. Writing letters is a complex task and modeling writing of letters is extremely important. The strategy is to

continuously model drawing letters and describe the steps used for drawing letters. Olsen (1998) describes directions the adult may use:

“Children, I’m writing the first letter of my name on this big paper. Watch this. First, I start at the top. Draw a big line down. Then I put a little line on the bottom. That’s an L.”

Olsen (1998) describes other easy to follow steps for children making upper and lower case letters of the alphabet. This is a reasonable and valuable resource for demonstrating letter writing for three- to five-year-olds and providing later direct instruction for kindergarten and first graders.

Knowing if children are ready to begin writing letters may be a challenge. Another good predictor for handwriting readiness is children’s ability to draw a circle, cross, square, triangle, or an X (Maeland, 1992; Tseng & Murray, 1994). Young children three to five years of age learn about drawing these important lines and shapes for later drawing of letters by watching adults. In addition, children need to practice making lines and shapes to explore their fine motor skills. There are many art activities children may engage in for developing these skills. For example, using strips of yarn to create circles or boxes, using texture shapes cut from material to create a picture, and adding textures to paper by putting an object with a raised pattern under the paper and rubbing with crayons. Other activities children may enjoy include:

- Coloring within an outlined area. Adults or the child should outline the area before the child colors. This provides a boundary for coloring as well as stimulating the small muscles of the hand.
- Drawing and writing on chalkboards and easels (e.g., making lines and circles). This develops shoulder and forearm muscles as well as hand skills for writing, which makes drawing pictures and exploratory writing fun.
- Cutting lines and shapes using various thicknesses of paper (thicker paper is easier to cut).

Writing first letters should be a fun experience for children. It is a life-long skill that should be encouraged with care, just as language and reading skills. More importantly, it is a skill adults need to model repeatedly for children.



Principle 3

Children Need to Engage in Meaningful Writing Experiences

Providing models and examples of writing

YOUNG CHILDREN NEED TO SEE ADULTS WRITING for real reasons. For example, adults make grocery lists, write and address letters, complete job applications, record phone messages, write down instructions, and many other things. Children imitate adult models continuously and will soon pick up a writing tool and use it as they have observed an adult (National Head Start, 1997). Parents and teachers need to show children that print has a real purpose and many uses by modeling writing in daily activities and providing opportunities for children to engage in meaningful drawing and writing like experiences.

Children are born imitators and bring a lot of imitating experience to any learning situation (Olsen, 1998). Imitating is simply watching someone demonstrate how it is done, then trying it yourself. Children must see the motions of writing to later imitate the motions to make letters. Children can imitate about six months before they can copy letters adults have made. Copying letters is developmentally more difficult than imitating the adult writing letters. Independent writing requires even more skills since the child must remember all the steps in writing letters. Therefore, the strategy is to provide daily meaningful demonstrations of writing for children (remember, it is important that they see you doing the writing). The teacher or parent writes and cues children, "Watch this!"

Adults can provide models and examples of writing for children before, during, and after routine or special events that are meaningful to them. Writing can be easily demonstrated before reading a story by writing the title or author of the story on newsprint paper or a strip of paper. During the story, writing may be modeled when the adult prints characters' names on newsprint or by tallying a sequence of events that occur. For example, the adult could tally the number of different foods the hungry caterpillar ate in the story *The Very Hungry Caterpillar* (Carle, 1984). After the story, adults may write children's favorite parts of the story or list the sequence of events in a story like *Who Sank the Boat?* (Allen, 1982). In this story, different animals got into a boat beginning with a cow, donkey, pig, etc. The adult could write on newsprint the sequence of the animals that got into the boat. Of course, this activity should be done with the children naming the animals that got into the boat and the adult writing their answers. Adults further facilitate children's writing by setting up reasons to write, modeling the writing, and by calling attention to adults writing. The following descriptions provide other examples of modeling writing for children's names, daily routines, play experiences, and children's dictation of sentences and/or stories.

Occasions to write children's names. Writing is used for many reasons during an adult's daily routine or various interactions with family, friends, or co-workers.

The following four themes may provide suggestions for modeling writing for children by writing their names in different useful ways.

- **Presence/Absence:** Adult writes down names of children present or absent.
- **Choice:** Adult writes names of children choosing an activity like the computer center or writing center.
- **Vote:** Adult writes names of children voting to go to the library.
- **Decision:** Adult writes names of children deciding to make a project like a bag puppet.

Daily routines. Model writing during daily routines. Several suggestions are provided in Appendix K for using labels, lists, signs, and charts for print awareness. The same ideas may be used in modeling writing to demonstrate that print has a meaningful purpose. Ask children to read the signs or labels after you have written them.

Children's play experiences. Model writing messages related to play. Children might want to leave a message to other children asking them to leave a block structure alone that they made. For example, the message on the sign may say, "PLEASE SAVE!" Adults and children may write rules for handling new baby chicks. Adults might want to model writing instructions for children to make a specific project.

Children's dictation of sentences and/or stories. Throughout the day, write with children. Provide opportunities for children to dictate sentences or stories and share their experiences in the classroom.

Providing models and examples of writing

The first step in promoting writing is to provide materials for writing. Children need an area (such as a writing center or table) to experiment with and explore writing. The writing area should be available throughout the day to supply children or adults with writing materials as needed. Effective writing areas contain a wealth of materials: a variety of writing tools such as pencils, colored pencils, markers, crayons, chalk; all kinds of paper of different sizes and texture; and tools for making books such as a hole punch, string, brads, and a stapler. Magnetic letters and magnetic boards, stencils, letter forms, and alphabet letter stamps and pads can promote children's exploration of letter and word formation. A table and several chairs provide a place for children to sit, work, and interact with each other while writing. To provide a child with a stable and optimal position for working, the child should be seated on a chair so that his or her feet are firmly on the floor, knees should be bent (about 90-degree angle) and hips should be positioned at 90 degrees also. The table or desk height for children should be about two inches above the child's bent elbow. This height allows the shoulder to effectively control the fingers in drawing or writing tasks. If the chair/surface does not provide proper position, the quality of work is compromised and stress is placed on muscles and

joints. However, writing may occur in a number of different places and positions without any structure at all. For example, children also enjoy writing while standing or lying on their stomachs.

Once the home or early childhood setting is equipped with an array of enticing writing materials, the parent or teacher may promote writing opportunities throughout the day. For younger children, it is important to link literacy activities with familiar experiences: sign a card, write a letter, or make a grocery list. New experiences can be introduced to older preschool children. If children have not experienced a specific writing activity (for example, writing a message over the phone), the adult can model the writing behavior. Ideas for promoting writing include the following:

- **Encourage children to communicate** with peers, teachers, and parents through written messages. As stated before, children can write labels, lists, signs, charts, and schedules. Don't discourage children as they use scribble writing. If the message needs to be readable, print it on the back of the paper.
- **Arrange centers to promote writing.** Children's play centers provide numerous opportunities for writing. Writing can be used to carry out real-life functions in children's play. Roskos (1995) suggests including literacy props in familiar play areas in the classroom. A message pad and pencil may be placed next to the phone in the housekeeping center or a pencil and paper may be placed close to the refrigerator for making grocery lists. The cooking center may have recipe cards and blank pages stapled together for making cookbooks. The restaurant may have a pad of paper and pencil for the waiter/waitress, and the post office may have envelopes, pencils, and stamps (stamp, stamp pad, or stickers).
- **Writing materials may be placed in many different areas** to promote writing. Place paper, scissors, tape, markers, and pencils in a block area so children can create signs and messages. In a science area, include forms and blank stapled pages for children to draw pictures, record observations, and make books about plants, animals, or rocks found there.

Writing props and materials will enrich children's play. However, children need the parent or teacher to model and explain writing tasks, interact with children, make suggestions, and offer encouragement as children learn to use writing to communicate messages in their play. Frequently, the adult must first get children involved in the play and writing activities. Once children become involved, the adult can step aside. By encouraging children to communicate through writing, arranging areas to promote writing, and placing writing materials in many different areas, adults will be teaching children that print has a real purpose and many uses.



Appendix J

Activities to Stimulate Print Awareness

Provide visual experiences

Activities should be planned to stimulate print awareness and build reading and writing skills. The following examples describe activities using visual experiences and matching of letters and words.

Child's name. A number of print awareness activities may involve children's names. Each child's name has a special meaning. Children love to be called by their name, see their name in print, and hear their name in a story. One of the first words children learn to notice and read is their name.

- Place the child's name and the names of people important to the child around the room, on the refrigerator, or in a photo album. Seeing meaningful names will stimulate print awareness and help children understand that printed words carry meaning.
- Nametags might be used for children in early care and education settings to stimulate print awareness. Place nametags of children on a table in random order. Each day as the children arrive, they will learn to scan the printed nametags to find their name. If there is a set order of displayed names, children will only learn the location of their nametag and not the critical letter features of their names.
- Nametags can be used daily to provide other opportunities for children to learn about printed words. As a child picks up a nametag, the adult may:
 - Count the number of letters in the child's name and comment, "Matthew, your name has seven letters. Your name is a long word. Look at all the letters. That makes it a long word."
 - Talk about the different letters in a child's name. "Steve, look! Your name begins with the letter S. See if you can find a friend's name that begins with the letter S." (The adult may have placed two or three nametags that also begin with the letter S close to Steve's nametag, so he could easily match the names with same beginning letter.)

Match letters and words

Introduce letters that have meaning for each child. Children can match a single letter or word to another one in the room. The adult may say, "I have a big letter here. It is the letter M." Or "Look at this letter. It is the first letter in Mika's name. It is a letter M. There is another letter M in the room. It looks just like this one. Can you find it for me?"

Point out specific letters or words children will see as they go out into the

community shopping, eating, or playing. For example: “We are going to the grocery store. Let’s look for the letter M. We will see how many letter Ms we can find.”

Alphabet puzzles, alphabet matching games, and other print-related manipulatives can be included on the shelves in a preschool classroom or at home. Matching and sorting activities help children learn to tell groups of letters from other letters based on different features. Alphabet books are a wonderful tool to bring attention to letters and the sounds relating to the letters. A typical alphabet book has a letter on each page along with objects with names beginning with that letter. Adults providing puzzles, games, alphabet books, and other print-related manipulatives will help children build print awareness.

Suggestions for Sensorimotor Play Activities

Children five years of age naturally explore the sensory characteristics of their environment. Sensory activities enhance the input children receive by letting them play in sand, water, or fingerpaints; explore squishy, firm, or soft objects; and move their bodies through space by crawling, climbing, or jumping. Other activities for this sensory exploration include:

- Have children find objects hidden in rice, beans, or corn. Magnetic alphabet letters could be hidden for children to find, match, or name.
- Ask children to name an object placed in their hand, without using their vision. Examples of common objects may include a key, pencil, or coin.
- Encourage writing, drawing and playing in fingerpaints, pudding, shaving cream, etc.
- Playdough and modeling clay provide strengthening as well as sensory input into children's hands. Squeezing, rolling, shaping, and forming playdough are fun ways to strengthen children's sensory input.
- After children have practiced tossing a ball or beanbag into a container, have them toss it with their eyes closed.

The small muscles in the hand allow the hand to shape itself to perform skilled movements called in-hand manipulation skills. In-hand manipulation skills begin to emerge in children around three years of age and actively continue developing in 3 to 6 years. These skills enable the hand to separate itself into two halves for function. The thumb/index side of the hand develops more refined manipulation skills while the ring/little finger side provides the stability for movement. In-hand manipulation skills enable children to move items from their fingers and into their palms smoothly. This is a skill needed when picking up several items. Developing these in-hand manipulation skills in preschoolers is important to promoting hand readiness for drawing and writing performance. Some activities include:

- Finger games and stories
- Picking up several items, one at a time, and holding them in your hand
- Stringing bead (putting the lace into the bead, NOT the bead on the lace)
- Dealing or sorting playing cards (Crazy Eight, Old Maid, Slap Jack, etc.)
- Shaking dice (such as during games)
- Crumpling up small pieces of tissue paper for art projects
- Turning over coins as quickly as possible (races are fun)
- Buttoning (vary the sizes)
- Dot-to-dot activities
- Coloring and drawing using pieces of chalk or crayons that are about 1/2-inch to one inch in length



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